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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>6</sup> :</b> <b>A61K 31/00, 31/56</b>	<b>A1</b>	<b>(11) International Publication Number:</b> <b>WO 97/07789</b> <b>(43) International Publication Date:</b> 6 March 1997 (06.03.97)
<b>(21) International Application Number:</b> PCT/GB96/02134 <b>(22) International Filing Date:</b> 28 August 1996 (28.08.96) <b>(30) Priority Data:</b> 9517622.8 29 August 1995 (29.08.95) GB <b>(71) Applicant (for all designated States except US):</b> THE UNIVERSITY OF EDINBURGH [GB/GB]; Old College, South Bridge, Edinburgh EH8 9YL (GB). <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> WALKER, Brian, Robert [GB/GB]; University of Edinburgh, Dept. of Medicine, Western General Hospital, Edinburgh EH4 2XU (GB). EDWARDS, Christopher, Richard, Watkin [GB/GB]; Imperial College School of Medicine, Imperial College, Level 5 Sherfield Building, London SW7 2AZ (GB). SECKL, Jonathan, Robert [GB/GB]; University of Edinburgh, Molecular Medicine Centre, Western General Hospital, Edinburgh EH4 2XU (GB). <b>(74) Agent:</b> MANATON, Ross, Timothy; J.Y. & G.W. Johnson, Kingsbourne House, 229-231 High Holborn, London WC1V 7DP (GB).		<b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
<b>(54) Title:</b> REGULATION OF INTRACELLULAR GLUCOCORTICOID CONCENTRATIONS  <b>(57) Abstract</b>  The interconversion of inactive 11-keto steroids with their active 11 $\beta$ -hydroxy equivalents can be controlled by the use of inhibitors of the 11 $\beta$ -reductase enzyme, such as carbenoxolone (3 $\beta$ -(3-carboxypropionyloxy)-11-oxo-olean-2-en-30-oic acid). Such inhibitors may be put to a number of therapeutic uses in humans and animals, for instance to inhibit hepatic gluconeogenesis, to lower intracellular cortisol concentration, to increase insulin sensitivity in adipose tissue and muscle, and to prevent or reduce neuronal loss/cognitive impairment due to glucocorticoid potentiated neurotoxicity or neural dysfunction or damage.		